Water Quality Summary Report No. 33

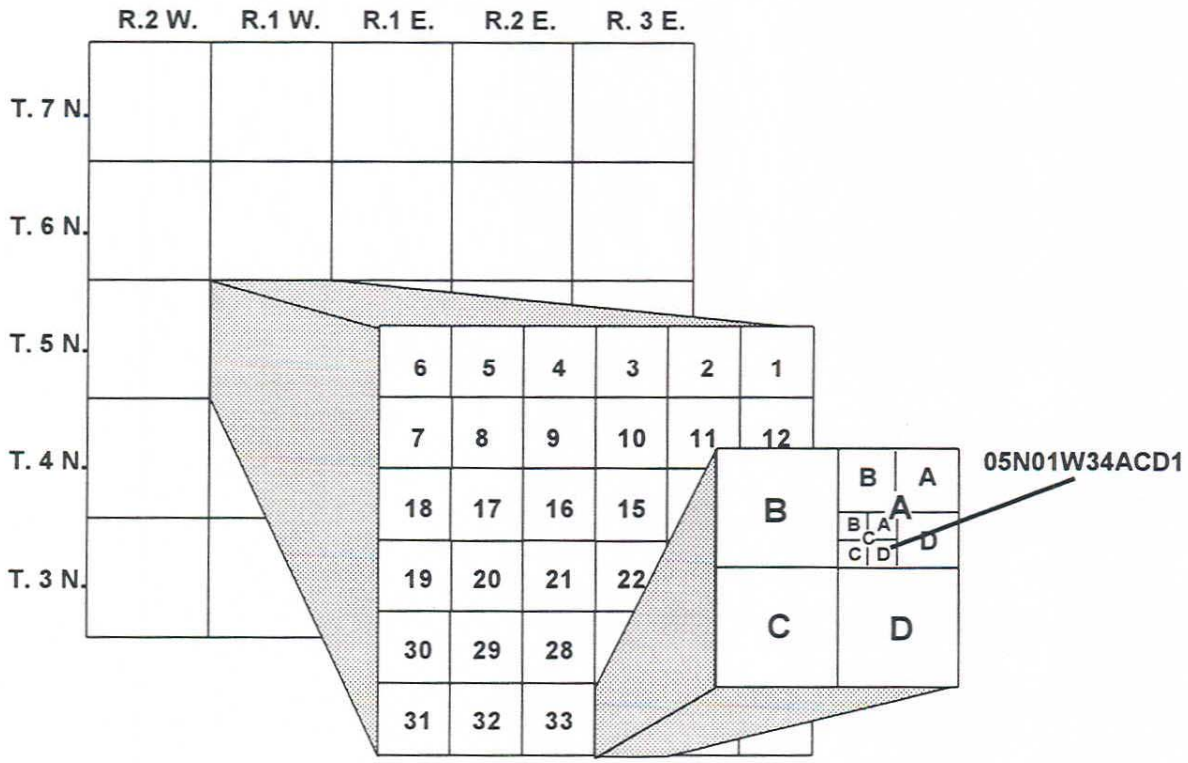
# 1998 Follow-up Studies to Ground Water Contamination Detections

Idaho Department of Health and Welfare
Division of Environmental Quality
July 1999

# Appendix B

## B1. Well Numbering System

The well numbering system used for this project is based on the United States Public Land Survey. The locations of the wells are within the official rectangular subdivision of public land, with reference to the Boise Baseline and Meridian. The first two segments of the number designate the township (north or south) and range (east or west). The third segment gives sectional number; four letters, which indicate the 1/4 section (160-acre tract), 1/4-1/4 section (40-acre tract), 1/4-1/4-1/4 section (10-acre tract), and serial number of the well within the tract. Some locations also include a 1/4-1/4-1/4-1/4 section (2 ½-acre tract) letter with in the section number. Quarter sections are designed by the letters A, B, C, and D in counterclockwise order from the northeast quarter of each section. Forty-acre, 10-acre, and 2 ½-acre tracts within each quarter section are lettered in the same manner. Well 05N01W34ACD1 (following figure) is in the SE 1/4, SW 1/4, NE 1/4 of section 34, township 5 north, range 1 west , and was the first well inventoried in that tract (modified from the USGS).



B3. Units of Measure for Table B2

| Table Field | Units |
|---|---|
| Well Location | Township, Range and Section 1/4, 1/4, 1/4 |
| Well Depth | Feet Below Ground Surface |
| Water Temp | Water Temperature in °C |
| pH | Standard Units (SU) |
| Sp Cond | Specific Conductance in microsiemens per centimeter (ug/l) |
| Air Temp | Air Temperature in °C |
| Sulfate | Milligrams per Liter (mg/l) |
| Arsenic | Micrograms per Liter (ug/l) |
| Zinc | ug/l |
| Fluoride | mg/l |
| Selenium | ug/l |
| Atrazine | ug/l |
| TDS | Total Dissolved Solids in mg/l |
| DCPA | Dacthal in ug/l |
| Bentzon | ug/l |

Regulated Primary Constituents discussed in this Report

| Constituent | Maximum Contaminant Level (MCL) |
|---|---|
| Nitrate | 10 mg/l |
| Arsenic | 50 ug/l |
| Fluoride | 4 mg/l |
| Selenium | 50 ug/l |
| Atrazine | 3 ug/l |

Regulated Secondary Constituents discussed in this Report

| Constituent | MCL |
|---|---|
| pH | 6.5 - 8.5 SU |
| Sulfate | 250 mg/l |
| Zinc | 5000 ug/l |
| TDS | 500 mg/l |

Table B4. Sampling Parameters

| Parameter | EPA Method | Container | Preservation | Holding Time |
|---|---|---|---|---|
| Total NO2 + NO3 as N | 353.2 | Plastic, 1 liter | 2 ml/l conc. H2SO4, cool, 4°C | 28 days |
| Fluoride | 300.0 | Plastic, 1 liter | cool, 4°C | 28 days |
| Sulfate as SO4 | 300.0 | Plastic, 1 liter | cool, 4°C | 28 days |
| Arsenic, dissolved | 200.9 | Plastic, 1 liter | 3 ml/l conc. HNO3, cool, 4°C | 6 months |
| Selenium, dissolved | 200.9 | Plastic, 1 liter | 3 ml/l conc. HNO3, cool, 4°C | 6 months |
| Zinc, dissolved | 200.7 | Plastic, 1 liter | 3 ml/l conc. HNO3, cool, 4°C | 28 days |
| VOC | 8021 | Amber Glass, 40 ml | cool, 4°C | 28 days |

Table B5. Quality Assurance of Sample Analyses

| Parameter | Matrix | EPA Method | Detection Limit (mg/l) | Accuracy | Precision | Completeness |
|---|---|---|---|---|---|---|
| Total NO2 + NO3 as N | water | 353.2 | 0.005 | 80-120% | +/-15% | 95% |
| Fluoride | water | 300.0 | 0.1 | 80-120% | +/-15% | 95% |
| Sulfate as SO4 | water | 300.0 | 2 | 80-120% | +/-15% | 95% |
| Arsenic, dissolved | water | 200.9 | 0.01 | 80-120% | +/-15% | 95% |
| Selenium, dissolved | water | 200.9 | 0.005 | 80-120% | +/-15% | 95% |
| Zinc, dissolved | water | 200.7 | 0.002 | 80-120% | +/-15% | 95% |
| VOC | water | 8021 | 0.21 ug/l | 80-120% | +/-15% | 95% |

Table B6. Project Organization and Responsibilities

| Project Personnel | Responsibility |
|---|---|
| **Sampling Supervisor**<br>**Linda Boyle** | Responsibility for supplying and directing field sampling team. Tracks sample custody and results of analyses. |
| **QA/QC Officer**<br>**Linda Boyle** | Ensures that specified quality control procedures are maintained. Will evaluate documentation and data for possible QA problems. |
| **Analytical Services Representative**<br>**Wally Baker and Barry Pharaoh** | Oversees all analytical chemists involved in the project. |
| **Data Management Representative**<br>**Linda Boyle** | Responsible for data entry, storage, and presentation. |